State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-772

Relating to Certification of New Medium-Duty Motor Vehicle Engines

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1997 model-year General Motors Corporation Otto-cycle engines are certified for use in medium-duty vehicles with a manufacturer's gross vehicle weight rating (GVWR) between 8,501 to 14,000 pounds:

Fuel Type: Gasoline

Engine Family	Engine Displacement Liters (Cubic Inches)		Exhaust Emission Control Systems and Special Features
VGM5.7CPGAEA	5.7	(350)	Dual Three-Way Catalytic Converters Sequential Multiport Fuel Injection Exhaust Gas Recirculation Dual Heated Oxygen Sensors (2)
VGM7.4C8GAEA	7.4	(454)	Dual Three-Way Catalytic Converters Sequential Multiport Fuel Injection Exhaust Gas Recirculation Dual Heated Oxygen Sensors (2)

Engine models and codes are listed on attachments.

The certification exhaust emission standards for these engine families in grams per brake horsepower-hour are:

Non-Methane Hydrocarbons + Nitrogen Oxides	Carbon Monoxide
3.9	14.4

The certification exhaust emission values for these engine families in grams per brake horsepower-hour are:

Engine Family	Non-Methane Hydrocarbons + Nitrogen Oxides	Carbon Monoxide
VGM5.7CPGAEA	2.1	4.4
VGM7.4C8GAEA	2.9	9.7

BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional standards and test procedures applicable to incomplete and diesel medium-duty vehicles of 8,501 to 14,000 pounds GVWR pursuant to Title 13, California Code of Regulations, Section 1956.8(g).

BE IT FURTHER RESOLVED: That the listed engine models shall be subject to the in-use compliance provisions applicable to 1995 and subsequent model-year medium-duty vehicle engines set forth in Title 13, California Code of Regulations, Section 2139(c).

BE IT FURTHER RESOLVED: That based on the compliance plan submitted by both the engine manufacturer and the vehicle manufacturer, the listed vehicle models are permitted alternative in-use compliance as set forth in Title 13, California Code of Regulations, Section 1956.8(g)(d).

BE IT FURTHER RESOLVED: That the submitted alternative in-use compliance plan satisfies the requirement that a maximum of 50 percent of the manufacturer's projected sales of 1997 model-year California-certified medium-duty vehicles will be subject to alternative in-use compliance as stipulated in the above reference standards and test procedures.

BE IT FURTHER RESOLVED: That the listed engine models complies with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(2.0) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the listed engine models comply with the "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 16th day of May 1996.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

E.O. #A-6-772

1997 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
INCOMPLETE MEDIUM-DUTY VEHICLE ENGINES
(CERTIFIED USING HEAVY-DUTY OTTO-CYCLE ENGINE TEST PROCEDURES)

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: VGM5.7CPGAEA

ENGINE CONFIG: V8 VALVES/CYL: 2

DISPL: 5.7 LITERS 350 CID

CERT STD: TIER-1 X LEV__ ULEV__

ENG INTENDED SERVICE CLASS: M4__ M5__

IN-USE STDS: FULL IN-USE__ ALT IN-USE X

MAX RATED POWER: 255 HP @ 4600 RPM

ALL ENG CODES IN ENG FAMILY: CA X 49S X 50S X

FUEL TYPE(S): DEDICATED X FLEX-FUEL__ DUAL-FUEL__ BI-FUEL__ GASOLINE X CNG__

LNG__ LPG__ M85__ M100__ OTHER (SPECIFY)_____

EMIS TEST FUEL(S): INDO X CNG__ LPG__ M85__ M100__ OTHER (SPECIFY) _____

EXHAUST ECS (E.G., OC, TWC, MFI, IFI, TC, CAC): 2TWC, SFI, EGR, 2HO2S(2)

(USE ABBREVIATIONS PER SAE J1930 SEP91)

ENGINE MODEL (ENG CODE)	RATED HP @ RPM	IGNITION SYSTEM OR ECM/PCM P/N	FUEL SYSTEM INJECTOR AND PUMP P/N	EGR VALVE P/N	CATALYTIC CONVERTER P/N
L31 (50)	250 @ 4600	16213205+ 16204142 +Software 16204025PA	PART OF INTAKE MANIFOLD ASM 17096072	17096188 17096309	25160620: 2 USED
L31 (51)	245 @ 4200				
L31 (52)	235 @ 4000	16213205+ 16204155 +Software 16204025PA			
L31 (53)	250 @ 4200	16213205+ 16227459 +Software 16204025PA			

ISSUED: 04-12-96 REV. NO.: